

State of California
Department of Food and Agriculture
Division of Measurement Standards

Certificate Number: 4178(d)-02

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California Type Evaluation Program
Certificate of Approval
for Weighing Devices

For:

Computing Scale
Digital Electronic
Models: MFQ-40L, MFQ-40LT*, PC-40L, and
PC-40LT*
 n_{\max} , Capacity, and Platform Size: (See Standard
Features and Options)
Accuracy Class: III

Submitted by:

Fabricantes de Basculas Torrey, S.A. de C.V.
Ave. Los Andes 605 Col. Coyoacan
Monterrey, Nuevo Leon
Mexico 64510
Tel: 011.528.379.1534
Fax: 011.528.377.9103
Contact: Magdalena Hernandez

Standard Features and Options

* The Models MFQ-40LT and PC-40LT include an alphanumeric customer tower display

Semi-automatic zero
Semi-automatic tare
Initial zero setting mechanism
Automatic zero setting mechanism
Alphanumeric liquid crystal display (LCD)
Battery powered 6 VDC

Gross/net weight display
Center of zero annunciator
Multiple item pricing
Power off timer function
AC to 9 VDC power adapter

MFQ-40L/LT Only:

Weighed/non-weighed product item totalizer
Discount/refund function
Internal AC to 9 VDC power adapter
Maximum price display: \$249.99
Loadcell: Tedeo-Huntley 1022 (Certificate of Approval Number 4430-96)

PC-40L/LT Only:

Maximum price display: \$999.99
Loadcell: Celtron Technologies LPS,
(Certificate of Approval. Number 4195-95)
No substitution (see "Application" section)

	MFQ-40L/LT	PC-40L/LT
n_{\max}	4000	8000
Capacity x Division	40 lb x .01 lb	40 lb x .005 lb
Platform Size	15" x 11.5"	14" x 11.5"

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the California Type Evaluation Program (CTEP) and was found to comply with the applicable technical requirements of California Code of Regulations for "Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: February 19, 2002

Mike Cleary, Director

Fabricantes de Basculas Torrey, S.A. de C.V.
Digital Electronic, Computing Scale
Models: MFQ-40L, MFQ-40LT, PC-40L, and PC-40LT

Application: For use in direct sales in supermarkets and delicatessens. Since the PC-40L/LT uses a load cell with an n_{\max} of 5 000 electronically expanded to 8 000, it must use the Celtron Technologies LPS load cell to be covered by this certificate.

Identification: The required markings are located on the customer's and operator's display. For the MFQ-40L/LT the identification label is placed under the weighing platter and is visible when the platter is removed (both versions) and the identification plate is pop-riveted on the right side of the device or underneath the scale platter for earlier versions of the Model MFQ-40L. For the PC-40L/LT the identification plate is a pressure sensitive self-destructive label located under the platter.

Sealing: Sealable parameter security is provided with Category 1, calibration and configuration event counters.

To access the calibration counter:

- Turn the scale on
- During the initial countdown, for the MFQ-40L/LT press "M", "C", "1", "0", "0", "0" and for the PC-40L/LT press "STO", "C", "1", "0", "0", "0"
- The scale display will read "CA" and display the number of times the scale has been calibrated

To access the configuration counter:

- Turn the scale on
- During the initial countdown, for the MFQ-40L/LT press "M", "C", "1", "0", "0", "1" and for the PC-40L/LT press "STO", "C", "1", "0", "0", "1"
- The scale display will read "CF" and display the number of times the internal configuration has changed

Turn the scale off and then back on to return to the normal weighing mode.

Test Conditions: This Certificate supersedes Certificate of Approval Number 4178(c)-01 and is issued to add the Models PC-40L and PC-40LT. The Model PC-40LT was submitted for evaluation. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested for accuracy approximately every 25 000 times. Additionally, tests were conducted using 100 VAC, 130 VAC, 7.5 VDC, and 9.9 VDC.

Previous test conditions are repeated below for reference.

Certificate of Approval Number 4178(c)-01: This Certificate superseded Certificate of Approval Number 4178(b)-98 and was issued without further testing to correct information contained in the identification section of the certificate and to correct the contact information.

Fabricantes de Basculas Torrey, S.A. de C.V.
Digital Electronic, Computing Scale
Models: MFQ-40L, MFQ-40LT, PC-40L, and PC-40LT

Test Conditions: (Continued)

Certificate of Approval Number 4178(b)-00: This Certificate superseded Certificate of Approval Number 4178(a)-98 and was issued to include the internal AC to 9 VDC power adapter and the limitation of total price display. The Model MFQ-40L was submitted for evaluation. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested periodically during this time. Additionally, tests were conducted using 100 VAC, 130 VAC, and a range of DC power supplies.

Certificate of Approval Number 4178(a)-98: This certificate superseded Certificate of Approval Number 4178-95 and was issued to add the Model MFQ-40LT. The Model MFQ-40LT with a tower mounted alphanumeric liquid crystal display (LCD) was submitted for evaluation. The emphasis of this evaluation was on device design and agreement of metrologically significant information between the operator and customer display.

Certificate of Approval Number 4178-95: The emphasis of the examination was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested periodically during this time. Additionally, performance characteristics and power voltage variation tests were conducted at 100 VAC to 130 VAC and 5.88 VDC to 6.12 VDC.

The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2002 Edition

Tested By: J. Cipollone (CA) 4178-95

Updates Tested By: S. Chan (CA) [4178(a)-98], G. Castro (CA), D. Parks (CA) [4178(b)-00], K. Jones (CA) [4178(c)-02], and K. Jones (CA) [4178(d)-02]